

Town of Bethel

Public Utilities Commission

Sewer Capacity Management Program

March 7, 2016

RECEIVED

2016 MAR 11 P 2:44

TOWN OF BETHEL
TOWN CLERK

Introduction

The Town of Bethel has executed Inter-Municipal Agreements (IMAs) with the City of Danbury for the transport, treatment and disposal of a maximum of 2,000,000 gallons per day (gpd) of sewage on an average day basis. The agreements also contain a total peak flow (maximum day) requirement of 6,105,000 gpd. The flow is distributed to three discrete Service Areas within Bethel. The flow limitations are specific to the wastewater sources within Service Area and will not be allocated outside the Service Area unless a need can be established under the provisions of the Article 4.4 Exception to Expansion Permit Outside Sewer Service Area. **Table 1 – IMA Flow Limits** provides the currently approved flows for each service area.

Table 1 – IMA Flow Limits

Service Area	Average Daily Limitation	Maximum Day Limitation
Berkshire	80,000 gpd	201,600 gpd
Paul Street	1,330,000 gpd	4,032,000 gpd
Payne Road	590,000 gpd	1,872,000 gpd

The Bethel Public Utilities Commission (BPUC) is responsible to manage the Town's public sewer collection system including the management of the volumes collected and transported to Danbury for treatment and disposal. The permitted volumes are set forth in of the Bethel-Danbury wastewater IMAs. The BPUC is responsible to ensure the IMAs' provisions are upheld, which includes fines, penalties, and other actions that could be taken for failure(s) to comply with the terms of the IMAs.

Through previous and ongoing analysis the BPUC has determined that there is a potential non-compliance that may occur as a result of the approval of projects in excess the Flow Limit in each of the Service Areas. This may occur as a result of connections from existing, new, or redeveloped properties.

In order to prevent the over-allocation of the Bethel sewer system, which may result in non-compliance with the terms and conditions of the IMAs, the BPUC has determined that revisions to the sewer allocation system are necessary. The BPUC is modifying the allocation program to prevent the over-allocation of the system. These revisions will not

prevent connections from being constructed. It will set forth the limitations under which connections will be made. It is formulated to allow the BPUC to better understand and manage the system over the near term.

During the term of this policy it is understood that additional analysis will be taken to understand the true needs of the Bethel public wastewater system and determine the best course of action to be taken relative to the long-term needs of the Town.

**Part 1
Bank Established**

As of February 2016 the average daily flows from each of the Service Areas and the Estimated Remaining Capacity (ERC) are provided in **Table 2 – Current Flows**. The average daily flows are based upon an analysis of recent discharge records for the three Service Areas.

Table 2 – Current Flows

Service Area	Average Daily Flow	Estimated Remaining Capacity
Berkshire	68,806 gpd	11,194 gpd
Paul Street	928,841 gpd	401,159 gpd
Payne Road	340,330 gpd	249,670 gpd

The Estimated Remaining Capacity is the difference between the IMA permitted amount and the current average daily flow. The Estimated Remaining Capacity is set according the Average Daily Flow. It is an estimate as there are many factors which can increase the current flow without the addition of a new source to the sewer system. They include collection system age – allowing more extraneous flows, changes in existing connection use, and changes in population demographics. In order to account for this potential change in the system characteristics, the BPUC has determined that an initial reserve of 50% of the Estimated Remaining Capacity should be held unallocated until a more complete analysis of the system can be made and accurate projections of the Town’s wastewater needs is completed. The remaining flows that may be allocated are found in **Table 3 – Sewer Allocations by Service Area**.

Table 3 – Sewer Allocations by Service Area

Service Area	Allocation
Berkshire*	0 gpd
Paul Street	200,000 gpd
Payne Road	125,000 gpd

*No flow allocation is available in the Berkshire service area. The remaining capacity identified above is inadequate to allow the existing developed properties within the sewer area to be serviced. Only under the Extreme Circumstances Policy identified below and Article 4.4 Exception to Expansion Permit Outside Sewer Service Area will additional connections in the Berkshire Service Area be permitted.

The BPUC will track the allocated flows based upon permits issued by the BPUC for new and revised connections. Existing permit flow allocations as of the date of execution of this policy will be held against the reserve capacity. Future projects will be deducted from the Service Area Allocation. If the Service Area Allocation is exhausted in any particular Service Area, further new connections or revisions will require explicit approval by the BPUC and only under the Extreme Circumstances Policy, such as a failure of an existing on-site wastewater disposal system.

Additional flows may be added to the Service Area Allocation as determined by the BPUC based upon the requirements of the IMAs and the actual flows from the Service Areas. Once the BPUC has completed the necessary analysis to derive the long-term wastewater needs for the Town, modifications to the existing allocations shall be made available for new and revised sewer connections.

**Part 2
Application Required**

Any request to increase the sewer allocation above that established by this program either through a change in use of an existing account or the establishment of a new account shall be accompanied by an application, on forms to be provided by the BPUC. Included with the application shall be an Engineering and Administrative Fee in accordance with the fee schedule shown in the appendix. The fees are required for the BPUC to properly administer the Service Area Allocation system, ensure documentation

is complete and accurate, and observe to ensure the connection is made in accordance with Town construction standards.

Any request for an amount of sewer allocation in the amount of 2,500 gallons per day or more will require the approval by the BPUC.

The application shall be prepared by the property owner or the property owner's agent. Proof of agency must be made by submitting notarized authority to the agent by the property owner.

The application shall include the Town of Bethel's Assessors' map, block and lot number of the parcel where the requested additional allocation is requested, the amount of the current allocation and the amount of the requested allocation, and the basis for the requested allocation.

The applicant shall provide a plot plan showing existing conditions as well as the proposed work and the location of new connection if applicable.

For the purposes of determining the estimated flows from a new or revised connection the applicant may use the following **Table 4 – Flow Allocation by User Type** to quantify the allocation required. These values include an allowance for infiltration and inflow that may occur from the new/revised sewer connection. For projects that are anticipated to produce more than 2,500 gpd and in circumstances where the connection may not be clearly defined in the table, the applicant is required to provide the estimated flows, which have been calculated and stamped by a State of Connecticut Professional Engineer. Connections containing more than one category will require the use of multiple categories to identify the connected flow. The example on the following page demonstrates a connection with varied usage types.

Table 4 – Flow Allocation by User Type

Usage Type	Estimated Average Daily Flow gallons per day (gpd)
Single Family residence (detached)	80 gpd per bedroom
Apartment	100 gpd per bedroom
Restaurant - formal dining	35 gpd per seat

Restaurant – fast food	20 gpd per seat
Convenience Store (no food service)	300 gpd
Motels/Hotels	120 gpd per room
Supermarket	100 gpd per 1000 square feet
Retail Store (dry goods)	75 gpd per 1000 square feet
Service Station (no food service)	300 gpd
Hair Stylist / Barber Shop	100 per seat
General Commercial Space (otherwise uncategorized)	30 gpd per 1000 square feet
Office Space (no cafeteria)	55 gpd per 1000 square feet
Doctor Office	250 gpd per practitioner
Dentist Office	250 gpd per seat
Health Care/Assistant Living Institutions	135 gpd per bed
Senior Housing (efficiency apartments)	80 gpd per bedroom
Dry Warehouse	10 gpd per 1000 square feet

Where the applicant disagrees with the values in **Table 4**, they may petition the BPUC for a modification specific to the individual application. The decision of the BPUC will be final.

Any change in zone which will result in a change in the total sewer usage per **Table 4** hereinafter set forth for the original zone where the subject property is located, whether increasing or decreasing the usage, will require approval by the BPUC.

Any request for an amount of sewer allocation which will result in the increased sewer usage above what would normally be allocated for the use in the zone in which the subject property is located from any application of any overlay type zone, e.g. DCD, will require approval by the BPUC.

For projects which exceed 2,500 gpd, the BPUC may require the applicant to verify the capacity of the existing public sewer system is adequate for the connection, including the gravity sewer system and pumping stations and force mains that will be utilized by the proposed/modified connection. In cases where there is inadequate hydraulic capacity to convey the flows, the BPUC will require upgrades to the system be constructed prior to the connection being constructed or modified. The BPUC may require the applicant to contribute to the upgrades to offset the costs of the system modifications.

Table 5 – Example provides an example of the calculations associated with a potential new connection to the BPUC sewer.

Table 5 – Example

Mixed Use Development.

Usage Type	Unit Flow	Total Usage Flow
25 Single Bedroom Apartments	100	2,500 gpd
25 Two Bedroom Apartments	200	5,000 gpd
Doctors Office (5 practitioners)	250	1,250 gpd
Convenience Store (no food service)	300	300 gpd
Office Building (10,000 sq ft)	55	550 gpd
Office Building Cafeteria (25 seats)	20	500 gpd
	TOTAL	10,100 gpd

Part 3 Approval

It is a condition of any approval of a new and/or modified connection to the sewer system that there will be remaining sewer allocation in the Service Area after such approval. All new and revised connections to the sewer system shall be approved provided adequate flow remains in the Service Area Allocation. All payments associated with the application must be received within 30 days of approval by the BPUC or the approved allocation becomes null and void, and the allocation reverts back to the Service Area Allocation. All work associated with the allocation must be completed within two years of the approval of the allocation or the allocation reverts back to the Service Area Allocation Bank.

Part 4 Maximum Allocation

In order to ensure an adequate volume for new and modified connections across the sewer service areas a maximum allocation will be set for each service area. The maximum allocation as a result of new connection or connection modification shall be limited to 10% of the remaining Service Area Allocation or 1,000 gallons whichever is larger. Under no circumstances shall the allocation exceed the remaining Service Area Allocation Bank.

**Part 5
Failure to Construct Connection**

On an annual basis the BPUC shall review the status of projects and allocations to each Service Area. Projects that have failed to advance shall have allocations revoked to allow other applications to be considered. After a period of 2 years, the flows allocated to a new or revised connection shall revert back to the Service Area Allocation if the project proponent fails to make the connection to the sewer system or commence the flows requested within the application.

**Part 6
Extreme Circumstances Policy**

Any person requiring a connection from an existing structure within a service area that does not have capacity within the Service Area Bank will be required to petition the BPUC for permission to proceed in filing an application. The real property for the connection request must have located thereon a septic system that is in the opinion of the Bethel Health Department has failed or is imminent danger of failure and that the existing conditions on-site will prevent the construction of an adequate replacement system. Connections allowed under this policy shall be limited to the flows that are discharged at the time of connection.

**Part 7
Authority**

In the event of any conflicts between the Sewer Capacity Management Program and the Bethel Public Utilities Commission Sewer Use Rules and Regulations as amended, the Bethel Public Utilities Commission Sewer Use Rules and Regulations shall be controlling.

**Part 8
Effective Date**

The implementation of the Sewer Capacity Management Program shall be effective after passage by the Bethel Public Utilities Commission at a regular or special meeting called for such purpose and in accordance with the requirements of Sec. 7-255 of the CT General Statutes and the terms of this Sewer Capacity Management Program shall be substituted for the Sewer Allocation Program dated December 2012.

Appendix

Fees

Engineering and Administrative Fee \$250.00 for a connection up to 500 gallons per day.

For connections exceeding 500 gpd will be subject to an additional fee of \$0.50 per gallon per day for flows above 500 gpd.

Application Extension Fee \$250.00